Assessment of Biomass at the County Level

Randy Hillard, AURI

Fueling the Future:
The Role of Woody Biomass for Energy Workshop

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Brainerd

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www.extension.umn.edu/agroforestry
Agricultural Utilization Research Institute

The Resource for Value-Added Agriculture in Minnesota
AURI Mission

- Identification and expansion of markets for new or existing commodities, ingredients and products;
- The development of new uses or value improvements for Minnesota agricultural commodities;
- The development of ag-based, renewable energy opportunities
AURI

- Created by the Minnesota Legislature in 1987, began operating in 1989
- Offices in Crookston, Marshall and Waseca
What we do

Sole focus is adding value to MN agriculture

• Scientific, technical assistance
  – R&D for MN agriculture and rural processors
  – Technical and market feasibility
  – Analytical testing of processes/products

• Broad impact initiatives
  – Identify emerging opportunities with potential to impact large number of producers
What we do

• Provide R&D expertise to rural Minnesota
  – Access to experienced technical and scientific staff
  – On-site or at AURI laboratory facilities
  – Conduit to additional networks and resources

• Provide producer information and education
  – Training sessions
  – Forums
  – Informational materials
AURI Facilities

• Meat Lab, Marshall
• Fats & Oils Lab, Marshall
• Coproducts Lab, Waseca
• Product Development Kitchen, Crookston
• Microbiology Lab, Crookston
Renewable Energy Template

Project Purpose

– Identify Renewable Energy Opportunities
– Project Feasibility
– Local Markets for Renewable Energy
– Empower Local Organization, Communities, etc.
– Cost Savings
– Spur the Development of Renewable Energy Projects Utilizing Biomass
Renewable Energy Template

Summary Tables

– Renewable Energy Potential
– Energy Use Estimate Summary
Renewable Energy Template

Renewable Energy Potential

– Crop Residues
– Animal Wastes
– Forest Wastes and Residues
– Wind Energy Potential
– Solar Energy Potential
– Geothermal/Earth Energy Systems
Renewable Energy Template

Energy Use Estimates

– Residential Energy Use
– Transportation Energy Use
– Agricultural On-Farm Energy Use
– Industrial Energy Use
– Commercial, Retail and Office Energy Use
Renewable Energy Template

Infrastructure Resources

- Railroads
- Natural Gas
- Electricity Service Territories
- Other Infrastructure
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Corporate Structures

- C - Corporations
- S – Corporations
- LLC Limited Liability Corporations
- Cooperatives
- C-BED
Renewable Energy Template

Tax Credits & Federal Renewable Energy Incentives

• Central Database of Incentives
• Section 45K Tax Credits
• Alternative Fuel Excise Tax Credit
• Renewable Energy Production Incentive (REPI)
• Renewable Energy Production Tax Credit (PTC)
• H.R. 2810 Amendment to Production Tax Credit
• Green House Gas Credits
Renewable Energy Template

Worksheets

- Renewable Energy Potential Summary Table
- Energy use Summary Table
- Crop Residue Summary Table
- Animal Residue Methane Potential
- Logging Residue Energy Estimate
- Wind Energy Estimate
Renewable Energy Template

Worksheets

• Estimated Residential Energy Consumption by Household Number
• Estimated Residential Energy Consumption by Age of Household
• Annual Fuel Consumption Estimate Based on VMT by County
• On Farm Energy Use Estimate
• Commercial Building Energy Use
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Questions?
Thank You!

The Resource for Value-Added Agriculture in Minnesota